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› ANCEL DS100 OBD2 Scanner User Manual

## ANCEL DS100

# ANCEL DS100 OBD2 Scanner User Manual

Model: DS100 | Brand: ANCEL

## 1. INTRODUCTION AND OVERVIEW

The ANCEL DS100 OBD2 Scanner is a professional diagnostic tool designed for comprehensive vehicle system analysis. It provides advanced diagnostics for Engine, Transmission, ABS, and Airbag (SRS) systems, along with 7 essential maintenance functions. This manual provides detailed instructions for setting up, operating, and maintaining your DS100 scanner to ensure optimal performance and accurate vehicle diagnostics.



Figure 1.1: ANCEL DS100 OBD2 Scanner with its diagnostic cable.

## 2. SETUP

Follow these steps to prepare your ANCEL DS100 scanner for its first use:

### 1. **Unboxing and Initial Inspection:**

Verify that all components are present in the package:

- 1 \* DS100 4 system scanner
- 1 \* Charging cable
- 1 \* Manual
- 1 \* ANCEL Protective case

### 2. **Powering On:**

Ensure the device is sufficiently charged or connected to a power source via the charging cable.

### 3. **Connecting to Vehicle:**

Locate your vehicle's OBDII port, typically found under the dashboard on the driver's side. Plug the scanner's diagnostic cable firmly into the OBDII port.



Figure 2.1: Connecting the DS100 scanner to the vehicle's OBDII port.

#### 4. Ignition On:

Switch your vehicle's ignition to the "ON" position (engine off).



Figure 2.2: Turning the vehicle ignition to the ON position.

#### 5. Start Diagnosis:

The scanner will automatically detect the vehicle's VIN (Vehicle Identification Number) using its Enhanced AutoVIN Technology, simplifying the diagnostic process. Once detected, you can proceed with your desired diagnostic functions.



Figure 2.3: The DS100 display showing the start of the diagnostic process.

# FASTER AUTOVIN TECHNOLOGY

Auto Scan VIN In Seconds

## STEP 1



## STEP 2

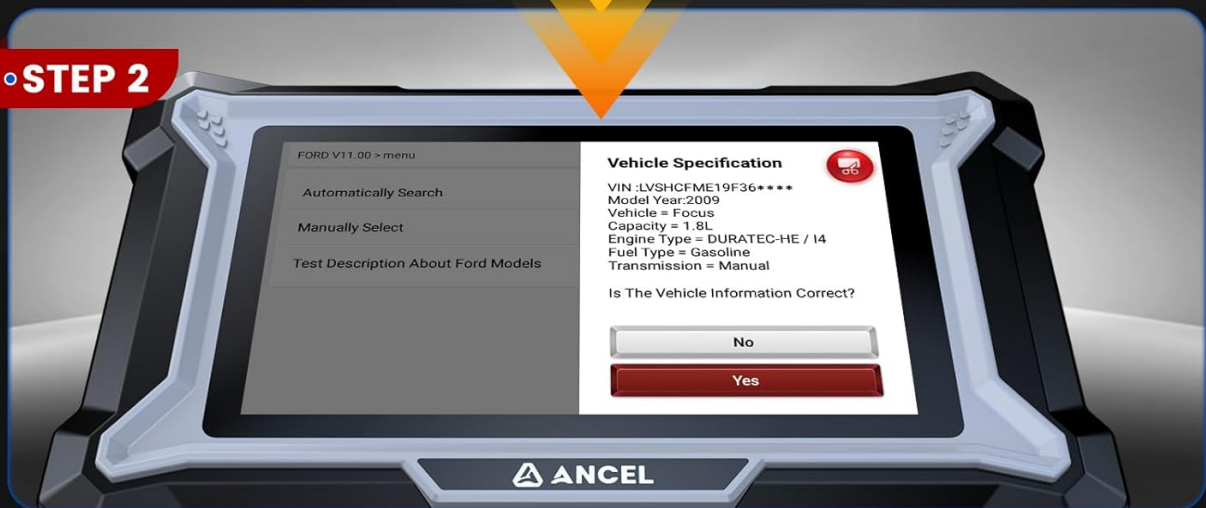


Figure 2.4: The AutoVIN feature automatically identifying vehicle information.

## 3. OPERATING INSTRUCTIONS

The ANCEL DS100 offers a user-friendly interface with a touch-sensitive screen for easy navigation. Below are the primary operating functions:

### 3.1. 4-System Diagnostics

The DS100 provides comprehensive diagnostics for the four key vehicle systems:

# ADVANCED 4 SYSTEMS DIAGNOSIS LIKE PROFESSIONAL



Figure 3.1: Visual representation of the four diagnostic systems: Airbag, ABS, Engine, and Transmission.

- **Engine System:** Detects issues such as misfires, ignition system failures, fuel system malfunctions, and emission system faults.



Figure 3.2: Engine diagnostic interface and common engine warning light.

- **Transmission System:** Identifies problems like delayed gear engagement, hard shifting, transmission slipping, and solenoid malfunctions.



Figure 3.3: Transmission diagnostic interface and common transmission warning light.

- **ABS (Anti-lock Braking System):** Quickly identifies ABS-related issues, including sensor failures, wiring problems, or ABS pump malfunctions.



Figure 3.4: ABS diagnostic interface and common ABS warning light.

- **SRS (Supplemental Restraint System) / Airbag:** Detects issues such as airbag ECU malfunctions, faulty airbag sensors, disconnected or loose system plugs, and faulty seatbelt sensors.

**NOTE: Airbag crash data cannot be erased, even after replacing the airbag, it stays permanently in the control unit per safety regulations.**



Figure 3.5: SRS diagnostic interface and common airbag warning light.

## 3.2. Complete OBD2 Functions

The DS100 provides full OBD2 functionality to help you identify and resolve vehicle issues:

# FULL OBD2 FUNCTION



Figure 3.6: Overview of full OBD2 functions including Read Codes, Clear Codes, and I/M Readiness.

- **Read/Clear Trouble Codes:** Quickly read diagnostic trouble codes (DTCs) and clear them after repairs.
- **Monitor Real-time Performance (Live Data):** View live sensor data streams to observe vehicle performance in real-time.

# DISPLAY REAL-TIME DATA STREAMS



Figure 3.7: Example of real-time data streams for ABS, ECM, SRS, and TCM.

- **I/M Readiness:** Check the readiness status of emission-related monitors to ensure the vehicle is ready for an inspection.

# I/M READINESS SELF-CHECK

Proactively identify emission issues and breeze through your annual inspection



Figure 3.8: I/M Readiness self-check screen for emission monitoring.

- **Freeze Frame Data:** View a snapshot of vehicle operating conditions at the time a fault code was set.
- **Oxygen Sensor Test Results:** Monitor oxygen sensor performance.
- **On-board Monitor Testing:** Access results of on-board diagnostic monitoring tests for specific components/systems.
- **Vehicle Information Retrieval:** Retrieve vehicle information such as VIN, calibration IDs, and calibration verification numbers.
- **Component Testing:** Perform tests on specific components to verify their operation.
- **E-VAP System Testing:** Test the Evaporative Emission Control System.

### 3.3. 7 Special Maintenance Functions

The DS100 includes 7 essential maintenance functions to assist with common service tasks:

# 7 SPECIAL FUNCTIONS



ABS Bleeding



Battery Matching



Electronica Throttle Adaption



Oil Reset



Steering Angle Reset



Gear Learn



Brake-pad Reset



Attention: Please upgrade software before use the reset functions, follow the video guide on the page.

Figure 3.9: Visual representation of the 7 special functions: ABS Bleeding, Battery Matching, Electronic Throttle Adaptation, Oil Reset, Steering Angle Reset, Gear Learning, and Brake Pad Reset.

- **ABS Auto Bleeding:** Removes trapped air from the ABS brake lines, restoring proper hydraulic pressure.  
**NOTE: Some vehicles only support manual ABS bleeding. If you're unsure about compatibility, please contact support.**



Figure 3.10: Steps for ABS Auto Bleeding, including replacing the ABS pump and adding/replacing brake fluid.

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Video 3.1: Demonstration on how to perform automatic ABS bleeding using the ANCEL DS100.

- **Battery Matching:** Syncs your new vehicle battery with the electronic system for optimal performance. Resets

the Battery Management System (BMS).



Figure 3.11: Visual guide for using the battery matching tool.

- **Brake Pad Reset:** Resets the electronic parking brake (EPB) system after brake pad replacement.



Figure 3.12: Illustration of electronic parking brake calibration.

- **Electronic Throttle Adaptation:** Resets and recalibrates the throttle body after repairs or cleaning.



Figure 3.13: Visual guide for electronic throttle adaptation and oil reset.

- **Gear Learning:** Recalibrates the ECU and crankshaft position sensor for accurate ignition and fuel injection timing.



Figure 3.14: Illustration of steering angle reset and gear learning functions.

- **Oil Reset:** Resets the oil change light or maintenance reminder after an oil change.

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Video 3.2: Demonstration on how to perform an oil reset using the ANCEL DS100.

- **Steering Angle Reset:** Recalibrates the Steering Angle Sensor (SAS) after maintenance or repairs.



Figure 3.15: Illustration of steering angle reset and gear learning functions.

### 3.4. Additional Operating Features

- **Wider Vehicle Compatibility:** The DS100 supports over 100+ car brands and works with any model since 1996.

# WIDER VEHICLE COMPATIBILITY

Works with any model since 1996

# 1000000+ Models

- **1000000+** Models
- **100+** Brands
- **20** Languages

Note: Coverage varies by vehicle make, model, and year. Please send VIN to confirm before purchase

Figure 3.16: Map illustrating the wide vehicle compatibility of the DS100 across USA, Europe, and Asia.

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Video 3.3: Overview of the ANCEL DS100's wide vehicle compatibility, supporting models since 1996.

- **Multi-Language Support:** The device is available in 20 languages, making it accessible to a broad user base.



Figure 3.17: Screenshot showing the multi-language selection interface on the DS100.

- **Diagnostic Reports:** Generate clear PDF reports with trouble codes, freeze frame data, and live sensor readings. These reports can be printed or shared.



Figure 3.18: Process of generating and sharing diagnostic reports from the DS100.

- **Quick Operation Guide:**

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Video 3.4: A quick operation guide for the ANCEL DS100 scanner.

- **Shortcut Keys:**

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Video 3.5: Demonstration of the one-click shortcut keys for simple and convenient operation.

## 4. MAINTENANCE

To ensure the longevity and optimal performance of your ANCEL DS100 scanner, regular maintenance and software updates are crucial.

- **Software Updates:** The DS100 features lifetime free updates. Regularly connect the device to Wi-Fi and check for updates to ensure you have the latest vehicle support and enhanced features.
- **Cleaning:** Use a soft, dry cloth to clean the device. Avoid using abrasive cleaners or solvents.
- **Storage:** Store the scanner in its protective case in a cool, dry place when not in use.

## 5. TROUBLESHOOTING

This section addresses common issues you might encounter with your DS100 scanner.

- **Device Not Powering On:** Ensure the charging cable is securely connected and the device has sufficient battery charge.
- **No Communication with Vehicle:**
  - Verify the OBDII cable is firmly connected to both the scanner and the vehicle's port.
  - Ensure the vehicle's ignition is in the "ON" position (engine off).
  - Check if the vehicle's battery is sufficiently charged.
  - Confirm vehicle compatibility. Some specific vehicle models or years might have limitations for certain

functions.

- **Specific Function Not Working (e.g., ABS Bleeding, Reset Functions):**

- Ensure the software is updated to the latest version.
- Some functions, like ABS bleeding, may only support manual operation on certain vehicles. Refer to your vehicle's service manual or contact support for specific compatibility.
- For Chrysler-owned brands (Chrysler, Dodge, Jeep, Fiat, Alfa Romeo, Abarth, Ram Trucks, Lancia, Maserati) since 2018, an AutoAuth account (paid subscription) is required for FCA diagnostics. The DS100 does not bypass this requirement.

- **Airbag (SRS) Crash Data Cannot Be Cleared:** As per safety regulations, airbag crash data remains permanently in the control unit even after replacing the airbag or parts. The DS100 cannot clear this data.

- **Difficulty Interpreting Codes or Data:** Utilize the online customer service feature for immediate assistance.

## 5.1. Online Customer Service and Feedback

The DS100 incorporates a fast and efficient online chat window for customer support. You can also submit feedback directly through the device.



Figure 5.1: Steps for providing feedback and accessing technical support.

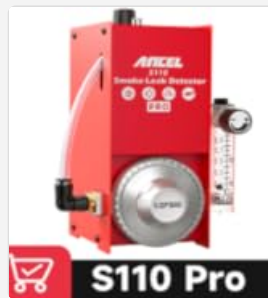


Figure 5.2: Comparison highlighting the benefits of online service over traditional email support.

## 6. SPECIFICATIONS

Feature	Detail
Brand	ANCEL
Model	DS100
Product Dimensions	8.2"L x 9.2"W x 2.3"H
Operating System	Android
Display Resolution	800x600

Automotive Fit Type	Universal Fit
Item Weight	1.3 pounds
Country of Origin	China
Date First Available	September 25, 2024



Figure 6.1: Back view of the ANCEL DS100, displaying model and serial number (e.g., SN: 988975101113).

## 7. WHAT'S IN THE BOX

- 1 x ANCEL DS100 4-System Scanner
- 1 x Charging Cable
- 1 x User Manual
- 1 x ANCEL Protective Case

## 8. WARRANTY AND SUPPORT

ANCEL is committed to providing excellent customer service and product support.

- **Lifetime Free Updates:** Your ANCEL DS100 scanner comes with lifetime free software updates, ensuring continued compatibility with new vehicle models and access to the latest diagnostic features.
- **Online Customer Service:** For any inquiries, technical assistance, or troubleshooting, utilize the integrated online chat window on the device. This provides a fast and efficient way to connect with support agents.

- **Contact Information:** For further assistance, you may also refer to the contact details provided in the device's "Consult" or "Service" sections, or visit the official ANCEL website.